

Picklist Print

September-04-14 11:56:03

Work Order ID: 123974

Parent Item: D6009-129

Parent Item Name: Crosstube

Comments: IPP Rev
alodineComponent Item ID/ Item Name
Req
Iter

D6009-129P

*D6009-129P

Crosstube Material

Work Order ID 123974

September-04-14 11:56:00 AM

Item ID: D6009-129

Revision ID:

Item Name: Crosstube Material

Start Date: 9/04/14 Start Qty: 20.00 *2

Required Date: 12/15/15 Req'd Qty: 20.00 *2

Reference:

Approvals: Process Plan: Date:

QC: Date:

Sequence ID/
Work Center IDOperation
Description

110

Receive & Inspect for Damage & Mat'l Cert

110

Packaging

Memo

Packaging

Ensure material certification is

120

QC6- Inspect dimensions to drawing

120

QC

Memo

Quality Control

Ensure Material certification co

140

Identify as per dwg & Stock Location: CC

140

Packaging

Memo

Packaging

Work Order ID 123974 - 2

September-04-14 11:56:00 AM

Item ID: D6009-129

Revision ID:

Item Name: Crosstube Material

Start Date: 9/04/14 Start Qty: 20.00 *20*

Required Date: 12/15/15 Req'd Qty: 20.00 *20*

Reference:

Approvals: Process Plan: MJS Date: 1409-04 Tooling: Date:

QC: Date: SPC (Y/N): Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D6009

Rev A

100

0.00

100

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 25798

- a) Order as per Dwg D6009
b) Material: 3.500 x 0.625 wall 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube
c) Minimum ultimate tensile strength = 77 ksi
d) Minimum tensile yield strength = 66 ksi
e) Tolerance are per ASTM B210 (see details on Dwg D6009)
f) Material certification required

EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

123974

Page 1

Accept

N9000040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

CZ 14/09/16 20

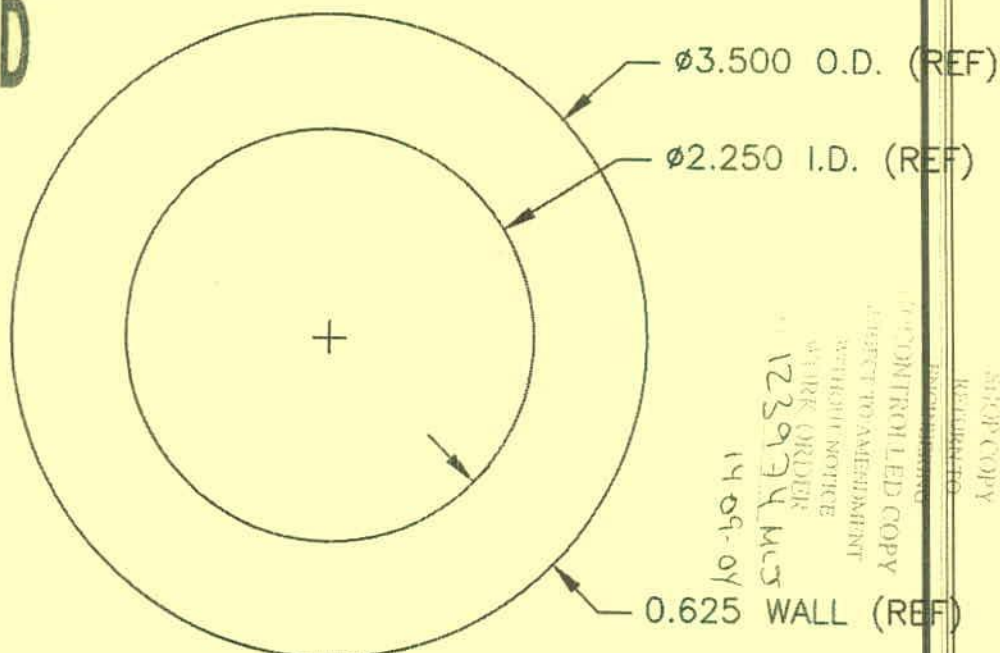
MS. A. 9. 2. 11



DESIGN #	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D6009	REV. A SHEET 1 OF 1
DATE 01.08.16		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	01.08.16	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01.08.17 #



NOTES

- 1) D6009-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 129" LONG TUBE: D6009-129

- 2) MATERIAL: 3.500 OD x 0.625 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.020 MEAN (± 0.063 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.188/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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DART
AEROSPACE

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

OUTSTANDING PO REPRINT

Purchase Order ID **PO25798**

Purchase Order Date 9/16/2014
PO Print Date 1/6/2016

Page Number 4 of 5

Order From : VU-ALU001
ALUMINIUMWERK UNNA AG
630 3033 SOUTH PARKER RD
AURORA, CO 80014
USA

Ship To : DART AEROSPACE LTD
1270
ABERD
EEN
HAWKE
SBURY,
ON
K6A
1K7
CANAD
A

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	303 755 5672	Customer POID	
Vendor Fax	303 755 5936	Customer Tax #	10127-2607
Ship To Contact		Terms	Wire
Ship To Phone		Currency	USD
		FOB	DDP - (Delivered Duty Paid)

Ship Method Contract Shipping
Ship Acct

Line Nbr	Item ID Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable	Req Qty	Extended Price
10	D6005-128P	Crosstube Material	1/29/2016 Yes 1/29/2016	21.00 Each	\$10,983.00
EXTRUDE AS PER DWG D6005-128 REV. B B123965					
Line Total:					\$10,983.00
12	D6009-129P	Crosstube Material	1/29/2016 Yes 1/29/2016	10.00 Each	\$12,540.00
EXTRUDE AS PER DWG D6009-129 REV. A B123974					
Line Total:					\$12,540.00

1/6/2016

delivery note

91379

page: 2
date: 16.12.2015
customer: 40980

+++++++ BALANCE FOR UNNA 54642/10 +++++++
Packing: seaworthy wooden cases
number of packages: 1
number of pieces: 21

item	quantity	unit	net kgs
1400	10,000	PC	

AWU article: 37272 / Tariff no. 76082081
Customer article: D6009-129 3.500 X 0.625 X 129 / cust. drwg.
product: Tubes / seamless extruded / EN AW-7075 / round
condition: T 6511 / AMS-QQ-A-200/11(A)

outer diameter:	3,500 INCH Tol.	+0,016	-0,016
tol. for mean OD		+0,008	-0,008
inner diameter:	2,250 INCH		
wall thickness:	0,625 INCH Tol.	+0,063	-0,063
fixed length	129,000 INCH Tol.	+0,188	

test report acc. to EN 10204/3.1 / RM 531 / Rp0,2: 455
straightness 0,01 INCH / 1 FEET / RMS max.: outer 25
tol. on quantity +10 % -10 % / scurfed
3.500" OD 0.625" Wall, 129" lengths
Part Number D6009-129 crosstube
Surface Finish max. RMS 25
Tolerances per ASTM B210
Tubes protected with corrosion protective oil
Tubes line marked

Sp/6-a-14

+++++++ BALANCE FOR UNNA 54642/12 +++++++
Packing: seaworthy wooden cases
number of packages: 1
number of pieces: 10

Terms of payment: 30 days after date of delivery
terms of delivery: DDP(Delivered,Duty,Paid)

weight:	gross	886,000	net	685,000
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Packstücke 2

customer address:
DART AEROSPACE LTD.
1270 Aberdeen Street
HAWKESBURY ON K6A 1K7
Kanada

Abnahmeprüfzeugnis 3.1 - DIN EN 10204:2005

Inspection Certificate 3.1 - DIN EN 10204:2005 / Certificat de Reception 3.1- DIN EN 10204:2005

Kunde: Dart Aerospace Ltd.

Client:

1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada

Zeugnisnummer: 1575/15

Cert No.: / No. du certificat:

Bestellnummer:

Order No. / No. de commande

Auftrag: 54642/1400

Our Reference/Notre Reference:

Produkt:

Product / Produit:

Rohre nahtlos gepresst

Tubes seamless extruded

Spezifikation:

Specification:

AMS - QQ - A - 200/11; -

Werkstoff:

Alloy/Alliage:

7075

Zustand:

Temper/État

T 6511

Abmessung

Size / Dimension

3,500 INCH x 2,250 INCH x 0,625 INCH x 129,000 INCH

D6009-129

Kennzeichnung

Marking/Marquage:

CERT. NO. 1575/15 - ALUnna - 7075 - T6511 - CAST NO. 85569 - AMS - QQ - A - 200/21 - 3.500"OD X 0.625"WALL - HEAT LOT NO. 1304949 - ALUNNA ORDER CONF. NO. 54642/1400 - 1 - P.O. 25798

Lieferung

Delivered Material / Matériel délivré:

pcs.

lbs

10

743

Country of Manufacture: Germany

Products are in accordance with applicable RoHS

1. Chemische Analyse

Chemical Analysis / analyse chimique

Charge/ min.	Si	Fe	Cu	Mn	Mg	Cr	Zr	Ti	Pb	Zr	Bi	Sn	Ni	Na
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20						
85569	0,06	0,14	1,51	0,04	2,5	0,21	5,87	0,03	0,01					0,0001

Hydrogen content: 0,12

ccm/100 g Al Elements without indication < 0,01 %

country of melt manufacturer: Germany

2. Mechanische Eigenschaften

Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat Lot No.
	81,0	72,0	7,0			
1	84,390	76,125	12,0			1304949
2	85,115	77,430	12,0			

SP/6-01-14

RMS: outside 25 - max. 11,4 µ"

Ergebnis der Prüfungen:

Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results:

We confirm that the delivery has been tested and applies to the agreements made on receipt of the order

Resultats:

Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande

mergardtri



Certified acc. DIN EN ISO 9001:2008 and DIN EN 9100:2009
valid until 2016-11-10

Cert.- Reg. No.: 001959 QM08; 001959 ASH 09-1

09.11.2015

Aluminiumwerk Unna AG, Uelzener Weg 36, 59425 Unna, Germany

ALUnna

Abnahmebeauftragter

EXTRUSION INSPECTION SHEET



		SIDE A		SIDE B		Measurment unit Inches		Symbol	"	ULTRA SONIC MEASURMENTS					
TUBE #	TOTAL LENGTH	DIA		DIA		INSIDE DIA	wall thickness measured w/vern	Strightness at 12" in middle	Rockwell Reading	LOCATION on tube	R1	R2	R3	R4	
		R1	R2	R1	R2										
DWG									N/A	Middle	N/A				
1	129"	3.506	3.496	3.510	3.500	2.240	.636	.628		N/A	Middle	.623	.618	.632	.646
2	129"	3.499	3.502	3.496	3.513	2.241	.623	.651		N/A	Middle	.630	.627	.635	.639
3	129"	3.502	3.504	3.495	3.505	2.246	.628	.651		N/A	Middle	.626	.621	.630	.633
4	129"	3.495	3.495	3.504	3.509	2.225	.637	.645		N/A	Middle	.641	.636	.633	.632
5	129"	3.499	3.505	3.497	3.504	2.235	.649	.617		N/A	Middle	.633	.626	.637	.639
6										N/A	Middle				
7										N/A	Middle				
8										N/A	Middle				
9										N/A	Middle				
10										N/A	Middle				
11										N/A	Middle				
12										N/A	Middle				
13										N/A	Middle				
14										N/A	Middle				
15										N/A	Middle				
16										N/A	Middle				
PART #		P/O#				BATCH #				Notes:					

6009-129

25798

123974